Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

Title V (proposed permit) No. V-04-044
Arkema, Incorporated
CARROLLTON, KY.
February 7, 2006
RON SCHNEIDER, REVIEWER

Source I.D.#: 21-041-00002
Source AI #: 690
Activity #:20040002

SOURCE DESCRIPTION:

Arkema Incorporated, Carrollton Plant, is a batch specialty chemical manufacturing producer of various products, including organotins. Specialty chemicals include plastic stabilizers, foam catalysts, industrial catalysts and glass coatings. The plant also operates a wastewater treatment plant (KPDES Permit) and hazardous waste incinerator (RCRA Permit). Both organic and inorganic metallic compounds characterize Arkema products. The plant operates reactors, boilers, blenders, centrifuges, condensers/heat exchanges, decanters, stills, and organic and inorganic storage tanks. A pilot plant (B-37) is used to scale up production and to resolve production glitches. Production areas, by building number or pad area, are noted as follows: B-02, B03, B05, B06, B-17, B22, B27, B28, B32, B33, B39, B48, B-52, B-55, B-67 and B-74.

Below is a discussion of the production and air pollution control that occurs in each respective production area/building number:

Building No./ Prod. Area	Arkema Description	Control Equipment
B-02	#4 Boiler, 70 MMBtu/hr, nat. gas/no. 2 and no. 4 oil-fired #7 Boiler, 26.8 MMBtu/hr, nat. gas/no. 2 and no. 4 oil-fired #5 Boiler, 25.1 MMBtu/hr, nat. gas/no. 2 and no. 4 oil-fired #3 Boiler, 25.1 MMBtu/hr, nat. gas/no. 2 and no. 4 oil-fired	None

Building No./ Prod. Area	Arkema Description	Control Equipment
B03	This process building is a multifunctional area. Current production consists of 2-mercaptoethyl tallate, stannous octoate, dioctyltin maleate and various tin-based catalysts including FC 4101, FC 4201, FC 4200, FC 4202 and FC 4102. 2-mercapto ethanol and catalyst are mixed with tall oil to form the product. 2-mercaptoethyl tallate is used as an intermediate in other production areas. Various catalysts are dried in one of two rotary dryers. An organotin stabilizer is produced by the reaction of dioctyltin oxide and maleic anhydride in heptane to form dioctyltin maleate.	Mercaptan emissions from reactor #1 are vented to a 90% efficient scrubber. Multiple emission points from this process building (including drying and blending) are controlled using a thermal oxidizer and scrubber (IR-7401). The combined design efficiency of the thermal oxidizer and scrubber is 98%.
B05	This area consists of three production lines: monbutyltin (anhydrous); monobutyltin trichloride (MBTC); and glass coatings consisting of MBTC/MIBK/trifluoroacetic acid. The glass coatings are vacuum charged, mixed, filtered, and packaged. MBTC is produced from the reaction of butyl crudes and tin tetrachloride in a vacuum still. After reaction, it is vacuum distilled to separate the MBTC and dibutyltin dichloride (DBTC). MBTC and DBTC are stored in tanks. DBTC may also be manufactured using the catalytic method.	None

Building No./ Prod. Area	Arkema Description	Control Equipment
B6/33	These areas produce grignard products. The buildings are referred to as "Pad Areas" because they do not have fixed walls or roofs. Grignard production consists of two parts: product manufacturing and process solvent recovery. Grignard production: Product manufacturing: Most of the Grignard products consist of two reactions. Triphenyl phosphine, tetraphenyl tin, triphenyl antimony, and monochlorobenzene are reacted with magnesium in tetrahydrofuran (THF) to form phenyl magnesium chloride (Grignard). As a result of the Grignard reaction, benzene is formed. Addition of an acid solution causes the solvent mixture to separate from the water-salt solution. THF is recovered from the water phase. After recovery, a carrier solvent (xylene, heptane, or water) is added to allow purification/crystallization. Some Grignard products are sold as intermediates. Process Solvent Recovery: Cleanup and stripped solvents are collected in a wet solvent tank. Water is extracted and the phases are separated. Mixed solvent is heated to various boiling point temperatures in a recovery boiler. Several cuts are made to extract each specific solvent. After separation, the respective solvent is stored in its use area. A still is used to recover solvent from the water-extracted material.	Ethylene glycol chiller operating at 40 degrees F for pad areas B6/33 Multiple emission points from these process buildings will be controlled using a thermal oxidizer and scrubber (IR-7401). The combined design efficiency of the thermal oxidizer and scrubber is 98%.
B17	This area is the storage tank farm.	NA

Building No./ Prod. Area	Arkema Description	Control Equipment
B22	This area consists of five (5) production lines and a tin foundry. Tin tetrachloride solution, chlorine, and tin bars are charged to a reactor/converter which produces crude tin tetrachloride Crude tin tetrachloride is further processed to remove unreacted chlorine prior to use as an intermediate. Stannochlor consists of: Degassed tin tetrachloride, boiler-melted tin and chlorine gas is reacted. Tin tetrachloride vapor is injected into a bell and reacts with molten tin to form stannous chloride. Excess tin tetrachloride vapors are condensed and returned to boiler. The product is flaked and drummed for shipment. Tin anode and tin/aluminum anode production: Anodes are manufactured to customer specifications for size and shape. Adding molten tin to a water bath produces tin feathers. Tin bars/tin feathers can be further purified to remove antimony.	A primary alkaline scrubber followed by two alternate parallel scrubbers Particulate emissions are controlled by a venturi scrubber
B27	Production in this area consists of: drying, milling, granulating, and repackaging	One baghouse with 99.5% efficiency controls emission from milling and grinding.
B28	This is a dedicated area for inorganic tin products. Production equipment consists of reactors, mix tanks, receivers, centrifuges, flaker, and dryer.	A wet scrubber controls emissions of tin tetrachloride, potassium hydroxide, and HCl. The dryer uses a baghouse and condenser for air pollution control. Ammonia is absorbed and fed to wastewater treatment.

Building No./ Prod. Area	Arkema Description	Control Equipment
B32	These production lines produce a series of plastic catalyst identified as Fascats. The primary product is dibutyltin oxide (DBTO) or Fascat 4201. Other products include FC 4100 and FC 4101. A thin film evaporator is used to process octyl or butyl products for the removal of isooctyl alcohol or 2-ethyl hexanol. The product is transferred to a second group of hold tanks and is then pumped to a shipping container. The stripped liquids are condensed and drummed for disposal.	VOC emissions will not exceed 500 lbs/yr per vent, precluding the necessity to control emissions with the thermal oxidizer and scrubber (IR-7401).
B39	This area is currently available to manufacture butyl stannoic acid (BSA) (Fascat 4100).	Particulate emissions from the dryer are controlled by a baghouse operating at 99.9% efficiency. Multiple emission points from this process building will be controlled using a thermal oxidizer and scrubber (IR-7401). The combined design efficiency of the thermal oxidizer and scrubber is 98%.
B48	This area is dedicated to the production of butyltin, octyltin, and methyltin stablizers. Five production lines are in operation. A typical production line includes reactor, receiver, split tanks, shared hold tank, and process filter. Materials charged to reactor may include monobutyltin trichloride, dibutyltin dichloride, sodium sulfide, 2-ethylhexyl mercapto acetate, 2-mercaptoethyl thallate, n-dodecylmercapto acetate, and sodium hydroxide. Products include one or more complex organotin molecules. The product phase is separated after adding a surfactant, followed by heating to drive out water. The mass is diluted, filtered, and pumped to drums or totebins.	Raw material tanks and reactor vacuum pump discharges to caustic and oxidizing scrubber system, with this system also controlling organic tin and odors. Since heptane has been eliminated from the manufacturing processes in this building, control by the thermal oxidizer and scrubber (IR-7401) will not be required.

Building No./ Prod. Area	Arkema Description	Control Equipment
B52	TRS Incinerator (Installed 1979) **Description:** Two Stage Incinerator Unit with a charging capacity of 4,000 lbs/hr This unit is subject to the hazardous waste combustor MACT 40 CFR 63 Subpart EEE Tin recovery allows the source to reduce volume and recover the tin by combusting waste solvents and materials. Combusted materials from the TRS Incinerator are shipped off site to be processed back into pure tin. This area contains solvent blend, solvent feed, slurry feed, hazardous waste tanks, and pipeline equipment which supply the TRS Incinerator for the tin recovery system. (Installed 1979)	LDAR (per RCRA permit KYD-006-373-992) Jet-Aire JA-306H baghouse, DU-5217A/B A venturi scrubber, CO-5240, operates and meets emission requirements in accordance with MACT standards under EEE. Emissions from the hydropulper (HY-5220) are controlled by the thermal oxidizer and scrubber (IR-7401).
B55	This area consists of one production line that is dedicated to the production of monomethyltin trichloride (MMTTC/DMTDC). This material is used a raw material for the B48 area. An anhydrous version of MMTTC may also be made in this area. Process equipment consists of a reactor, tanks, absorbers, scrubbers and a thermal oxidizer.	Reactor emissions include methyl chloride. A water absorber recovers organic tin emitted from the process. Emissions from the scrubber are vented to a thermal oxidizer (TO) with a destruction efficiency of 99.9%, followed by a caustic scrubber (99% efficient) to control HCl emissions. Breathing losses from intermediate product storage tanks are vented to a venturi scrubber. Process venting and primary emergency vents are routed to the TO and caustic- water scrubber.

Building No./ Prod. Area	Arkema Description	Control Equipment
B67	Waste Treatment Process Wastewater from production enters the wastewater treatment system at two sump points, 4A and 4B. Wastewater is pumped from the sumps to wastewater collection tanks, and pH adjusted, and then to equalization tanks, followed by pH adjustment. A lamella tray separator allows polymer material to be added which causes flocculation. Solids recovered at this point are directed to the tin recovery system incinerator (TRS). Nutrients and microorganisms are added to the lamella water solution and the chemical feed tank. Discharge from the diffused bubble aeration tanks, followed by secondary clarification and flocculation, with overflow from the secondary clarifiers entering sand filters/hold tanks/ and granular activated carbon are the source of discharges from the system. After all stages of wastewater treatment, the water is sent to the Ohio River. Secondary solids are routed to the TRS.	None

COMMENTS:
No visible emissions observations are required for any boiler when burning natural gas. When #2 fuel oil and #4 fuel oil are fired, weekly visual observations shall be recorded in accordance with Section D, Opacity Monitoring of Emission Point, of the permit.

Please refer to Column 3 of the above table for the type of control and efficiency associated with each production area or pad.

Emission factors are based on AP-42 factors, stack tests and engineering calculations including mass balances. Emission Master software (Mitchell Scientific, Inc.) was used to model VOC/HAP emissions from batch processes. Along with several common physical models, this program bases much of the emissions modeling on EPA published literature ("Control of Volatile Organic Compound Emissions from Batch Processes - Alternative Control Techniques Information Document", EPA - 450/R-94-020, February 1994) as well as the Pharmaceutical MACT standard. The latest USEPA tanks spreadsheet was used to estimate inorganic and organic storage tanks emissions. A modified USEPA version of the LDAR spreadsheet is used to calculate fugitive VOC and HAP emissions.

As of the Federal Register notice dated August 3, 2005, the USEPA classified this region attainment for the 1-hour ozone standard.

A synthetic minor permit VF-01-003 was issued August 21, 2001 for the B3, B5, and B48 areas, and

this synthetic minor permit has been incorporated into the Title V operating permit. This permit was modified on January 14, 2005 (VF-04-003) to eliminate the use of heptane in B-48 and allow for capacity increase in B-05 and B-48. The synthetic minor is still applicable.

A consent decree was issued August 5, 2002, by the United States District Court for the Eastern District of Pennsylvania between the USEPA and Atofina Chemicals, Incorporated. For the emission units that must comply with the Decree, please refer to Sections B, E, and I of the Title V Operating permit. This consent decree was amended on August 17, 2004 to clarify schedules and address inactive process buildings.

In accordance with the Consent Decree and its Amendment, process areas B-06, B-33, and B-39 ceased operation as of November 30, 2005. The Title V permit will serve as a construction permit for these areas (as new sources) as they are brought back into production, connection to the thermal oxidizer (or reduction of emissions to less than 500 lbs/yr per vent) having been completed after the compliance date of the Consent Decree for all non-fugitive sources of VOC emissions.

In accordance with 40 CFR Part 64, Arkema has submitted a Compliance Assurance Monitoring (CAM) plan for the thermal oxidizer and scrubber (IR-7401). The plan outlines the procedures for monitoring, collecting data and ensuring accuracy of data for scrubber water flow rate (measured by a magnetic flow meter), scrubber water pH (measured by a pH probe), scrubber differential pressure (measured by a differential pressure transducer), and combustion chamber temperature (measured by a thermocouple). It also outlines procedures for performing an annual inspection of the burner.

Each of the four parameters is monitored, with the data acquisition system recording the parameter every two minutes, calculating a one-hour average, and using the one-hour averages to calculate a 24-hour average.

Annual calibration and cleaning of the magnetic flow meter is specified, with an acceptable range of $\pm$ 5%; the pH probe is manually calibrated to $\pm$ 5% every 3 months; annual calibration of the differential pressure transducer is performed, with an acceptable range of $\pm$ 5%; the thermocouple is required to be calibrated annually to $\pm$ 0.5%.

Acceptable ranges for the parameters in the CAM plan will be established during stack testing in the first quarter of calendar year 2006. An excursion will constitute any time IR-7401 is required to be operated that any of the specified parameters falls outside the acceptable ranges established as a result of testing.

A further indicator of performance of IR-7401 is opacity, which will be monitored in accordance with Section D of the permit.

The following permits, permit applications, registrations, and/or inquires have been combined into this Title V operating permit application, Log Number 50709/F914:

Log Number	Date Closed	Date Received	Subject	Comment
53432	1/5/01	12/8/00	Anhydrous Methyl Tin Production	Minor mods
53688	1/24/02		Anhydrous methyl tin production	Minor revision
54006	8/14/01		Replace Tnk 1730	Minor revision
54266	1/24/02		B39/B32 TIPSA	Add production of TIPSA

54623	7/7/02	5/8/02	Tosylate	B-39 area production
54647	7/14/02	5/15/02	Modification B28 Area	Minor revision: replace 1,000 gal. #1 Reactor, RX-2824 constructed 1974/1979 with 1,500 gal. reactor
54688	12/31/03	5/29/02	Precompliance Plan	Letter withdrawing request received 12/31/03
54936		8/22/02	Thermal Oxidizer control for B52 Hydropulper after addition of fixed cover and hopper assembly	Control VOC/HAPs
54987	11/10/02	9/11/02	B55 production increase	Minor permit modification
55325	2/11/04	11/12/03	Fascat production in B3 and B32	Minor permit modification
55443	1/24/03	1/13/2003	Stannous Octoate Production	Minor revision
55510	4/7/03	2/6/03	Production of ICD 1078	Minor permit modification
55835	8/17/03	6/18/03	B5 production increase of dibutyltin dichloride	Minor permit modification
55918		8/1/03	Notification of subject to MACT standards	
55988	11/15/03	9/16/03	Off permit change (Addition of Thermal Oxidizer B-74 area)	Criteria pollutants not significant increase
56215	2/20/04	12/22/03	S-28 production and tote bag loadout installation	Minor permit modification
56573	7/20/03	5/21/04	Addition of tank in B55	Minor permit modification
	1/21/05	11/22/04	Low Tri-DBTO production in B-32 and B-46	Minor permit modification
	4/30/05	3/1/05	Allow for the production of Fascat 4100 and Fascat 4101 in B39	Minor permit modification
	5/28/05	3/29/05	B28 packaging of Stannochlor	Minor permit modification

RCRA permit KYD-006-373-992 was issued by the Division of Waste Management on September 29, 1989. The following regulations and USEPA guidance manuals were employed to develop the RCRA permit, and are the basis of the limits for cutting off the waste feed rate to the incinerator in the Title V operating permit:

- 401 KAR 34:240. *Incinerators*
- 401 KAR 38:030, *Conditions applicable to all permits*
- 401 KAR 38:070, *Application procedures.*
- EPA 1983. "Volume I: Guidance Manual for a Hazardous Waste Incinerator Permit." PB84-100577. July.
- EPA 1989. "Volume II: Guidance on Setting Permit Conditions and Reporting Trial Burn Results." EPA/625/689/019. January.
- EPA 1989. "Volume III: Hazardous Waste Incinerators Measurement Guidance Manual." EPA/625/689/021. June.

Emission rates of hazardous air pollutants (HAPs) are based on the maximum production rate for the respective production area considering that more than one product may be produced at the same time and in the same production area. HAP emissions are a function of what product is being produced in the respective production area at any given time.

Operation of the thermal oxidizer and scrubber (IR-7401) will significantly reduce HAP emissions from the source. The source has requested that these facilities and operation of the thermal oxidizer and scrubber (IR-7401) be made federally enforceable to maintain the potential to emit for hazardous air pollutants below 25 tons per year for all HAPs. Please refer to Section E and respective production areas of the Title V operating permit that will have HAP emissions controlled by the TO.
The following regulations apply to the respective areas at the plant:

Area B-02

401 KAR 59:015, *New indirect heat exchangers*, which applies to indirect heat exchangers with a capacity of more than one (1) million Btu per hour but less than or equal to 250 million Btu per hour constructed on or after April 9, 1972 (EP 03 and 04).

401 KAR 61:015, *Existing indirect heat exchangers*, which applies to indirect heat exchangers with a capacity of more than one (1) million Btu per hour but less than or equal to 250 million Btu per hour constructed before April 9, 1972 (EP 01 and 02).

401 KAR 60:005, Section 3(e), incorporating by reference 40 CFR 60.40c to 60.48c (Subpart Dc*), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* (EP 04 only).

Area B-03

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations*, apply to emission units constructed on or after July 2, 1975.

401 KAR 61:060, *Existing Source Standard for Solvent Operations*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Areas B-05, B-22, B-55, B-67

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Areas B-06 and B-33

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources).*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035 and 40 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

Area B-17

401 KAR 60:005, Section 3(l). Incorporated by Reference from 40 CFR 60.110b to 60.117b (Subpart Kb), *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.* [Applicable to Emission Points (ST17)] (Recordkeeping of size only)

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Area B-27

401 KAR 59:010, *New process operations*, which applies to emission units constructed on or after July 2, 1975

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources)*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035 and 40 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

Area B-28

401 KAR 59:010, *New process operations,* which applies to emission units constructed on or after July 2, 1975.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Area B32

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations, which applies to emission units constructed on or after July 2, 1975.*

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources).*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

40 KAR 61:060, *Existing sources using organic solvents*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

Area B39

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations, which applies to emission units constructed on or after July 2, 1975.*

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources).*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

Area B-48

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Area B-52

401 KAR 59:020, *New incinerators* applies to emission units with a charging rate of fifty tons per day or less constructed on or after April 9, 1972.

40 CFR 61 Subpart E - *National Emission Standard for Mercury*

401 KAR 60:005, Section 3(l), incorporating by reference 40 CFR 60.110b to 60.117b (Subpart Kb), *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

40 CFR 63 Subpart EEE-*National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combusters.*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: Notifications required under 40 CFR 63 Subpart EEE should be made to the USEPA Administrator and the Division for Air Quality.

Area B-67

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

EMISSION AND OPERATING CAPS DESCRIPTION:

Area	Process/Equipment	Capacity limit
02	Indirect heat exchangers	To preclude the applicability of 401 KAR 51:017 for significant emissions increase of sulfur dioxide, combined consumption of #2 and #4 fuel oils for Emission Point 04 shall not exceed 1,015,000 gallons per year (12-month rolling average). To preclude the applicability of 40 CFR 51, Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations, combined Sulfur Dioxide emission for Emission Points 01, 02, and 03 from the consumption of #2 and #4 fuel oils shall not exceed 200 tons per year. Should such emissions ever exceed 250 tons per year for the specified boilers, then the provisions of 40 CFR 51 will apply for those units.
05	Production: monbutyltin (anhydrous); monobutyltin chloride (dry)/MIBK/ trifluoroacetic acid RX-05, TK-05, WT-05, CO-05 and DT-05.	To preclude the applicability of 401 KAR 51:017, the total volatile organic compounds (VOC) emissions from these emissions units in Area 05 shall be less than 40 tons/yr. To preclude the applicability of 401 KAR 51:017 for significant emissions increase of VOC, MBTC production will be limited to 21,000,000 pounds per year and the concentration of Dibutyl Ether (DBE) will be limited to 3,000 ppm or less in the butyl crudes raw material.
48	RX-48, TK-48 and PF-48	To preclude the applicability of 401 KAR 51:017 for significant emissions increase of VOC, the production of plastic stabilizers will be limited to 80,000,000 pounds per year. Production of MBTC via the heptane process and solvent-based stabilizers will be discontinued.
52	Production: Tin recovery	Pursuant to 40 CFR 61, Subpart C, the beryllium emission rate shall not exceed 10 grams in 24 hours and 3650 grams per year. Pursuant to 40 CFR 61, Subpart E, the mercury emission rate shall not exceed 3200 grams in 24 hours and 1,168,000 grams per year. Pursuant to 401 KAR 59:020, Section 3(1), emissions of particulate matter shall not exceed 0.2 grains per dry standard cubic feet (gr/dscf) of exhaust gases corrected to twelve (12) percent carbon dioxide excluding the contribution of carbon dioxide from auxiliary fuel.
55	Production: Methyltins	General Condition 27d of construction permit C-97-001, issued March 26, 1997, provides a table of control and process equipment that must be in operation to avoid 401 KAR 51:017 for significant emissions increase of VOC.

OPERATIONAL FLEXIBILITY:

B-33 and B-39

Arkema Inc. voluntarily opted out of production of Tetraphenyltin Hydroxide (TPTH) prior to the effective date of the Pesticide and Active Ingredients (PAI) MACT (40 CFR63) in December 2003. With the issuance of this Title V permit, Arkema Inc. will establish itself as conditional major source of hazardous air pollutants (HAPs). If Arkema elects to manufacture TPTH in B-33 after the effective date of the Title V permit, it must comply with the consent order and control VOC emissions from the process area. Assuming that the conditions of the consent order are met by controlling VOC emissions by greater than 95% and that Arkema maintains it's status as a conditional minor source for HAPS, Arkema may produce TPTH in B-33. As a conditional major source for HAPs, Arkema will not be subject to the PAI MACT.

B-55

The permittee controls VOC emissions from B-55 using a thermal oxidizer (IR-5519). With the issuance of this permit, the permittee has the option to control emissions using an alternate thermal oxidizer (IR-7401). The permittee will demonstrate that IR-7401 meets or exceeds the performance of IR-5519 for VOC control. All monitoring and recordkeeping requirements defined in Section E will continue to apply under this scenario. The permittee will notify the Division in writing prior to switching between the two thermal oxidizers.

PERIODIC MONITORING:

Air pollution control equipment shall be maintained and operated in accordance with the manufacturer's specifications. Monitoring and record keeping specified under Sections B.4, B.5, and B.7 shall be performed as prescribed.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.